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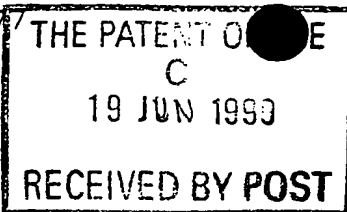
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The Patent Office

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Newport
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1. Your reference

JCW/3837

2. Pat

(The Patent Office will give you)

9914366.1

19 JUN 1999

3. Full name, address and postcode of the or of each applicant (underline all surnames)

Molins PLC
11 Tanners Drive
Blakelands
Milton Keynes
Bucks
MK14 5LU

Patents ADP number (if you know it)

If the applicant is a corporate body, give the country/state of its incorporation

United Kingdom

611574005

4. Title of the invention

Packet

5. Name of your agent (if you have one)

J.C. Webb

"Address for service" in the United Kingdom to which all correspondence should be sent (including the postcode)

Molins PLC
Group Patent Department
Haw Lane
Saunderton
High Wycombe
Bucks
HP14 4JE
United Kingdom

Patents ADP number (if you know it)

4035358001

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and (if you know it) the or each application number

Country

Priority application number
(if you know it)

Date of filing
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7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

Number of earlier application

Date of filing
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a) any applicant named in part 3 is not an inventor, or

b) there is an inventor who is not named as an applicant, or

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Description	3
Claim(s)	3
Abstract	1
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11. I/We request the grant of a patent on the basis of this application.

Signature

Date

J. C. Webb

18 June 1999

12. Name and daytime telephone number of person to contact in the United Kingdom

D. J. Neville (01844) 272202

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Packet

This invention relates to packets, particularly but not exclusively cigarette packets such as those having a hinged lid.

5 Miniature devices are known for use in greetings cards for playing an electronically recorded audible message on actuation of a switch, usually on opening of the card. Typically the audible message is recorded on electronic memory means provided as part of an integrated circuit. Usually associated with the circuit is a digital to analogue converter and a miniature loudspeaker or equivalent. It is also known to provide similar devices also incorporating a microphone and analogue to digital converter, thereby providing a facility to record a message for subsequent replay. Any device of this general kind, or otherwise capable of incorporation in or with a packet and of playing an audible message or sound on actuation of a switch or other actuatable means, is hereinafter referred to as a "miniature audio device".

15 According to one aspect of the present invention a packet includes a miniature audio device, and means for actuating the device on opening the packet or otherwise gaining access to the or part of the contents. The device may be internal in the sense that it is contained within the packet (although not necessarily in the same compartment as the main packet contents), or external, e.g. affixed to an outer wall of the packet. The packet contents may be a group of articles removable individually, e.g. cigarettes. Accordingly, another aspect of the invention provides a cigarette packet including a miniature audio device.

20 In either aspect of the invention the switch may be actuated manually, or at least semi-automatically, on opening of the packet. Thus, a tab or tape may be connected to the switch and in the case of hinged lid packets connected also to the lid such that on initial or preferably each opening of the lid, the tab or tape actuates the switch. Alternatively, a tab or tape connected to the switch may be exposed on first opening of a packet and may be moved or movable manually on first or subsequent access to the packet contents. For example, pulling on a tape to actuate the switch may be associated with a lifting strip which displaces a first cigarette after opening of the packet so as to allow easier grasping by a

smoker. Such lifting strips could be used with hinged lid cigarette packs or with so-called soft packs. It may not be necessary for there to be a physical connection between the switch and part of the packet or its contents to cause actuation of the device, e.g. the switch could be a proximity switch and respond to movement or a photodetector responding to light when the packet is opened.

The device may be actuated on the removal of a predetermined one or part of the packet contents, whereby a message related to the remaining quantity of contents of the packet may be played. For example, a message could be played reminding a consumer to obtain further supplies when only one or a few articles remain in the packet. In such case the switch could be connected so as to be actuated by removal or movement of the last or one of the last articles. An example of one product where such an arrangement would be useful is a packet containing sheets of labels.

The type of message could and normally would depend on the packet contents. Where the contents are cigarettes, messages containing speech and/or music associated in the consumer's mind with a particular brand or manufacturer could be played, or health or other warnings could be given. Where the message is spoken, this could be in any or several languages.

The term "packet" is used herein broadly e.g. to include bags or other containers.

The invention will be further described, by way of example only, with reference to the accompanying diagrammatic drawings, in which:

Figure 1 is a side view of a hinged lid cigarette packet, and

Figure 2 is a sectional view on the line II-II in Figure 1.

A hinged lid packet 10 has a body portion 12 and a lid portion 14 connected to the body portion along a hinge line 16. The body 12 contains a main compartment 18 having a base 20 for containing a group of cigarettes (not shown) usually wrapped in protective foil. The base 20 serves to separate the main compartment 18 from a sub-compartment 22 which contains a miniature audio device 24 having a movable switch 26. A tape 28 constructed from relatively stiff plastics material extends from the switch 26 through a small slot in the base 20 and along a side face of the main compartment 18 to a connection

30 on the corresponding side face of the lid 14. The connection 30 may be glued but the connection and/or tape preferably allows pivotal or bending movement of the tape when the lid 14 is opened. The switch 26 may incorporate a resilient connection to the device 24 so as to retract the tape 28 on closing of the lid, in which case the tape could be replaced by a thread; alternatively, the tape may be sufficiently stiff to close the switch on closing of the lid.

It will be appreciated that on opening of the lid 14 by hinging about the line 16 the tape 28 is pulled to actuate the switch 26. The device 24 may deliver an audible message or other sound while the switch 26 is in its actuated position (i.e. while the lid 14 is open) or may simply deliver a message or sound of predetermined length on each actuation.

The tape 28 could be replaced with a tape passing adjacent the rear face of the packet 10, as indicated at 28A in Figure 2. It will be appreciated that the location of the switch 26 on the device 24 needs to correspond with the position of the tape 28 or 28A.

A device similar to the device 24 could be located other than in a separate compartment within the packet, although it is preferred that the device is separated from the packet contents so as to avoid possible tainting of the cigarettes. The device 24 could be mounted externally of the packet, e.g. on the rear face, particularly where the device is of flat construction.

Claims

1. A packet including a miniature audio device, and means for actuating the device on opening the packet or otherwise gaining access to the or
5 part of the contents.

2. A packet as claimed in claim 1, wherein the contents comprise a group of articles removable individually.

10 3. A packet as claimed in claim 1 or claim 2, wherein the articles are cigarettes.

4. A cigarette packet including a miniature audio device.

15 5. A packet as claimed in any preceding claim, wherein the device incorporates a switch which is actuated on opening of the packet.

20 6. A packet as claimed in claim 5, wherein the packet has an openable lid and the switch is connected to the lid by longitudinally-extending connecting means.

25 7. A packet as claimed in any preceding claim, wherein the switch or other actuatable means is connected to a tab which is adapted to be moved to gain access to the packet contents.

8. A packet as claimed in claim 7, wherein movement of the tab is arranged to expose or lift at least part or one of the packet contents.

30 9. A packet as claimed in any preceding claim, wherein the switch or other actuatable means is actuated other than by physical connection between it and part of the packet or its contents.

10. A packet as claimed in claim 9, wherein the switch or other actuatable means is a proximity switch.

5 11. A packet as claimed in claim 9 or claim 10, wherein the switch or other actuatable means includes photoelectric means.

12. A packet as claimed in any preceding claim, wherein the device is arranged such that its switch is actuated by removal of at least one or part of the packet contents.

10 13. A device as claimed in claim 12, wherein the switch or other actuatable means is actuated on removal of a predetermined one or part of the packet contents, whereby a message related to the quantity of the contents remaining in the packet may be played.

15 14. A packet as claimed in any preceding claim, wherein the device is arranged to play a message related to the nature of the packet contents or their manufacturer.

20 15. A packet as claimed in claim 14, wherein the message contains speech and/or musical content.

16. A packet as claimed in any preceding claim, wherein the device is capable of recording and subsequently replaying a message.

25 17. A packet as claimed in any preceding claim, wherein the device is separated from the packet contents by at least one wall.

30 18. A packet as claimed in claim 17, wherein the packet contents and said device are contained in separate compartments.

19. A packet substantially as herein described with particular reference to the accompanying drawings.

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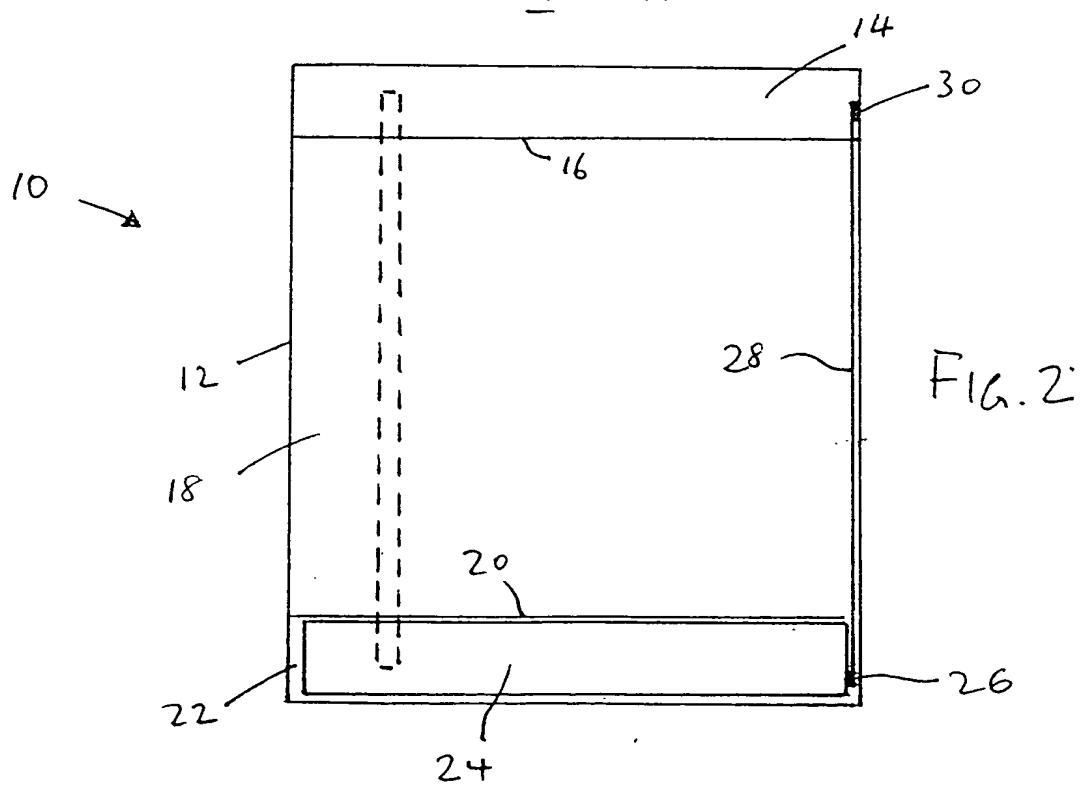
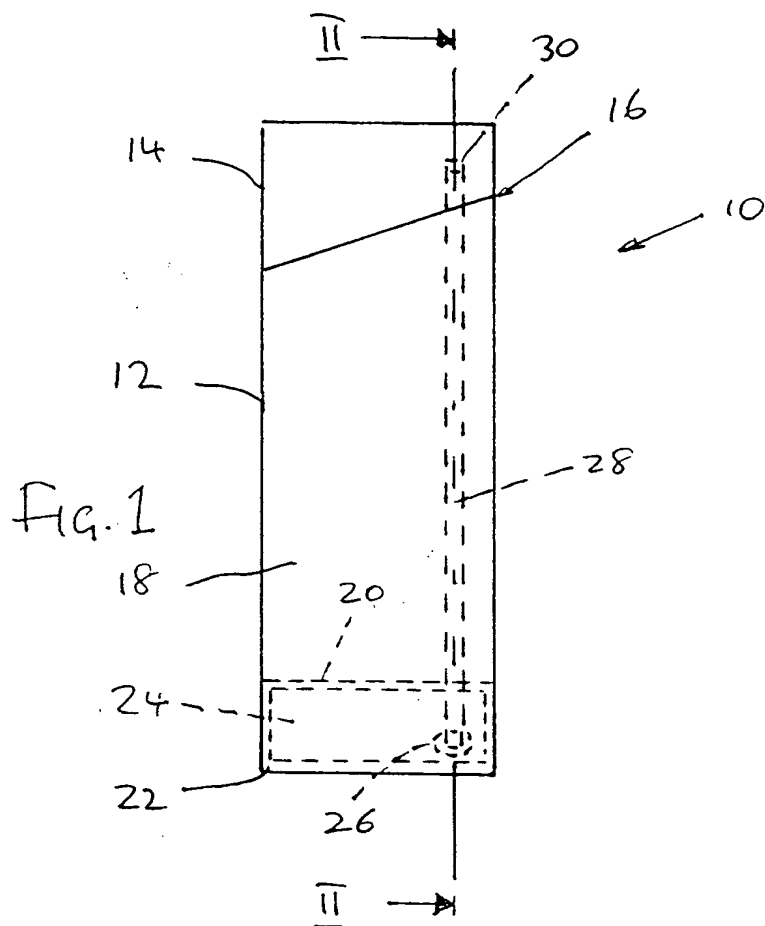
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Abstract of the Invention

5 A packet incorporates a miniature audio device capable of playing an electronically recorded audible message on actuation of a switch, particularly on opening of the packet or otherwise gaining access to the packet contents. The device could play a pre-recorded message containing speech and/or music, and/or could replay a message recorded by the consumer. The packet may contain cigarettes or other individual articles, the device preferably being located within a separate compartment contained within the packet.

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